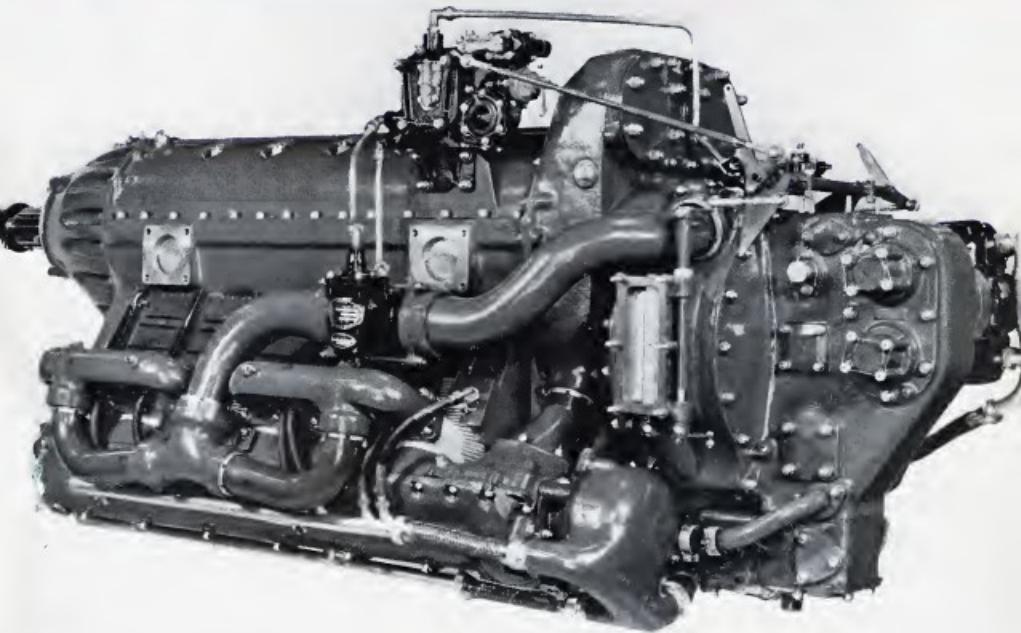


# Aviation News

MCGRAW-HILL PUBLISHING COMPANY, INC.

OCTOBER 16, 1944



**Ranger's New 700 H. P. Lightweight Engine:** Weighing only 780 pounds, Ranger's new compact power plant has many applications for post-war commercial aircraft, especially in the feeder airline field. This new photo shows detail of three-quarter rear view. The engine is a 12-cylinder V-type inverted, inline and air-cooled.

## World Air Power Urged to Enforce Peace

Would not be force in being, but individual units committed to action when needed; Senate would approve assignment of U. S. unit.....Page 7

## PAA Data on 3 Plane Types for Latin America Use

Predicts New York-to-Buenos Aires round trip fare as low as \$342.90 with DC-7's, modified Constellations and "Type 12" aircraft.....Page 36

## Return of Last 26 Planes Gives More Seats Than Before

New allotment increases capacity to 6,205 passengers, compared with 6,145 before U. S. requisitioned craft.....Page 34

## Jap Steel Industry Has 'Priority' in Super Missions

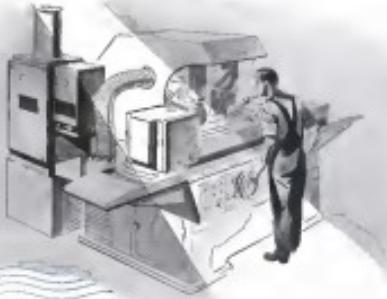
Vulnerability of Nipponese heavy industry makes plants strategic target; seven recent missions were against enemy steel centers.....Page 21

## Four-Year Non-Engineering Course Opens at Miami U.

Three basic curricula established stress various phases of vocational training in aeronautics; 34 freshmen, including 6 war veterans, enroll.....Page 13

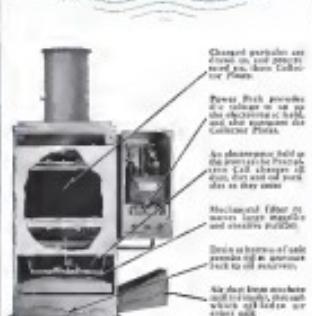
## Halting Tendencies Revealed in Stocks of Airlines

Prices of air transport equities pushed upward to points where yields are extremely low, based more on potential earning power.....Page 32



## Precipiton "INHALES" OIL MIST TO END FIRE HAZARD... SALVAGE COOLANT

### A NEW PRINCIPLE FOR CLEANSING AIR



**Westinghouse Precipiton the Electronic Air Cleaner**  
MADE IN U.S.A.  
OFFICES DOWNTOWN

\*Trade-mark registered U. S. A.

### THE AVIATION NEWS

## Washington Observer

**BRITAIN MOVES**—Impressions created by Britain to datum air travel and transport were underlined by a recent appointment of Vicente Swanson, government trade and aviation specialist as Civil Aviation Minister with cabinet rank and was not overlooked by high officials in Washington. The move took on additional significance since it came about as the eve of the international conference on civil aviation which will open in the United States Nov. 1.

**SWINTON'S POSITION**—One post not overlooked in Washington was the probability that Vincent Swanson will head the British delegation to the international conference and that the United States has no officer of comparable rank. A. A. Berle, Assistant Secretary of State, probably will head the United States delegation. Britain is anxious to protect her interests in the post-war aviation sweepstakes.

**BRITAIN DETERMINED**—Appointment of Swanson reflected to some degree the worried glances cast in many directions out of London recently, particularly of British officials for covering the plates with aerial routes and at Russia's unorthodox post-war expansionism. There had been some criticism of lack of policy in London, even as there has been in Washington. Whatever works out of the British plane, the objective was voiced by Sir Archibald Sinclair, air minister, who said Britain meant to keep her place in the first ring of international air transport. That is giving Washington something to think about.

**AIRLINE ALLOCATION PLAN ENDS**—Current allocation to the airlines of 26 DC-3 type planes from the military marks the last batch to go back under the old allocation method. Under this plan, CAB and the War Department's reservations management committee worked together to determine which carriers should receive what planes. Heretofore, deciding agencies will be Surplus War Property Administration and an interdepartmental working committee representing State, War, Navy and Commerce departments, CAB, NPA, WPA, and PEA.

**ALLOCATION ANGLE**—Aviation people in Washington note that the last return brings the number of aircraft under the 260 ceiling and given the carriers approximately 60 seating capacity than had early in 1942 when the Army took over 186 of their planes. Reports are that the Army now is reluctant to lift the ceiling.

but feeling in the industry is that it will be lifted when and if more planes of the commercial transport type become available.

**CANADIAN RECONSTRUCTION CHIEF**—Materials and Supply Minister C. D. Howe, who is also responsible for civil aviation in Canada as carry-over from his former post of Minister of Transport, is expected here to be Minister of Reconstruction when that department is established. He is a believer in public ownership of major airlines operating on a national basis, as the Trans-Canada Air Lines, with private enterprise operating in regional air transport fields.



Victory Day in the Pacific

**SURPLUS BOARD**—The new Surplus Property Board will have a reconstruction job to do before it can get under way. Many of the top executives are ready to follow W. L. Clayton out, staying just long enough to turn over their work to the new board. Still others are willing to see what the composition of the board will be before deciding.

**PERSONNEL DIFFICULTY**—One of the worst features of the SPS turnover is that it will be difficult to recruit bidders for surplus disposal. Board probably will have to draw from





**Just zip it up...to seal liquids  
and gases under pressure!**

Perhaps you can use this new  
**B. F. Goodrich PRESSURE SEALING ZIPPER**

**O**ne engineer calls it the "poker face that doesn't leak," but the right name for this secret product of B. F. Goodrich research is "Pneumatic Sealing Zipper."

temperature range. The rubber won't cure when bent at -70°F. but because it's at 150°F. Weatherability is good; aging tests have shown present compound is best possible for that type of product.

One separating-type and two non-separating types of three uppers are available. One seals for entire length is open at both ends; another is closed at bottom, seals along entire length, and is open at top; third seals along entire length and at top and bottom.

Merry Christmas and a happy new year!

*Skyway Highway*  
**B.F. Goodrich**  
FIRST IN RUBBER

www.scholarone.com/reviews/1000000000000000000

## World Air Power Urged to Enforce Peace Under 11-Nation Council

Would not be force in being, but individual units committed to action when needed; Senate would approve assignment of U.S. units to international forces.

By WILLIAM G. KEY

An international air force—not a force in being but contingents of national air forces held available for immediate action—would form the backbone of the 11-power Security Council of the United Nations proposed as a result of the Dumbarton Oaks conference.

Doubtless the position of the United States Senate has been taken into consideration in framing the world war force section. It was insisted from the general international police force provisions and dealt with on a separate basis. And while the international police force was provided, the air force would consist of the regular army.

• [View Details](#) • [Edit](#) • [Delete](#) • [Print](#)

national air force, and these units would then be held "immediately available" for use at the direction of the Security Council and the Military Staff Committee assigned to the Council. The Military Staff Committee would be composed of the chiefs of staff of the permanent members of the Security Council. The great powers of the United States, Great Britain, Russia, China and France.

(This provision for membership in the Military Staff Committee at the chief of staff of a power creates a need for action on the part of his country, which does not have a permanent chief of staff. Admiral Gentry holds that post by executive order of the President and as yet no provision has been made by Congress to create an overall chief of staff by legislation.)

**Transitional Police Force**—The international air force designed to police Germany after her defeat (AVIATION NEWS, Sept. 11, page 7) would function under transitional provisions in the United Nations organization proposal. Under this,

## New Organization Chart of Aeronautical Chamber of Commerce





### NEW BRITISH FLYING TEST BIG:

Photo reproductions have been removed from Britain's Folland G.37, designed and built exclusively to flight-test various types of power plants. The 3-place cabin is equipped with special instruments. Installation shown is a Bristol Hercules engine.

The Four-Power Declaration of Moscow would function to maintain international peace and security until the international force would come into being under the new world organization.

It would not be necessary, under

### Termination Form

Standard forms to be used for settlement of terminated fixed-price supply contracts approved by all government agencies concerned are now available from any government procurement office.

The new standard forms will replace those previously issued by the War and Navy departments and are expected to speed settlement of terminated war contracts.

**Form 1**—The standard contract settlement proposal (Form 1) provides for filing of virtually any type of inventory claim and also allows for progressive payment reports. Requests for payment can be filed at any time, even when the contractor proposes to disperse or retain all inventory allocable to the terminated portion of the contract and the net amount of the previous settlements does not exceed \$1,000, and form 1 is to be used for settlement proposals on total cost basis.

Forms for inventory schedules are provided in following metals (in mill product form): Form 2-a, new materials; either than metals; Form 2-b, new materials; Form 2-c, tools, dies, jigs, fixtures, etc.; Form 2-d, in cases where substantiating data are required, a schedule of accounting information. (Form 31 is available.

### AVIATION CALENDAR

- Oct. 14-15—Aircraft Technical Committee, Dept. of Defense, Small Aircraft Planning Conference, Columbia, Mo.
- Oct. 15-16—National Association of Air Transport Airlines, Chicago.
- Oct. 17-18—International Air Transport Association, Brussels.
- Oct. 18-19—International Air Transport Association Meeting, Seattle, Wash.
- Oct. 19-20—U.S. Civil Aviation Federation Council, Fort Worth, Tex.
- Oct. 21-22—Manufacturers Council, New York City.
- Oct. 22-23—Manufacturers Association, Boston, Mass.
- Nov. 12-13—National Association of State Motor Vehicle Administrators, Atlanta, Ga.
- Nov. 13-14—National Organization of Economic Authorities, Washington, D. C.
- Dec. 4-5—SAC Selected AD Code Meeting, Boston.
- Dec. 5-7—General Aeronautical Association International and Manufacturing Association, Boston.
- Dec. 15-16—National Aviation Trade Association, Atlanta, Georgia.
- Dec. 16-17—Aviation Information Analysis Board, St. Louis, Mo.

## 3 New Regulations Issued by OCS

Rules designed to clarify negotiation methods and speed settlements.

Office of Contract Settlement has proposed further along the same path of war contract termination settlement with the issuance of three new regulations in addition to the four discussed in AVIATION News last week.

Preliminary regulations dealt with T-louise part payment, pre-negotiations agreements, and provisions for the contractor either to meet the government's cost requirements or his plan or have it reviewed within 60 days after request for removal, except where necessary for other war purposes.

**Fairchild Industry Reconciliation**—New regulation No. 7 follows laws which have been urged by the aircraft industry and basically provides for exercise of sound business judgment in negotiations in order to speed settlement of terminated war contracts.

This regulation deals with fair compensation and determines that the prime contract and subcontract termination articles previously announced by orders of the Office of War Mobilization conform to the Contract Settlement Act of 1944. It also establishes minimum standards and methods to be used in negotiation of settlement by agreement under the act in those cases in which settlement is made on the basis of costs and profits.

**Negotiated Settlement**—The Contract Settlement Act was generally interpreted by the aircraft industry as providing for negotiated settlement, but some concern has been expressed by industry executives that settlement by negotiation, arbitration and accounting for parts and pieces might defeat more favored procedure. The problem, as expressed by some industry leaders, is that one of administration rather than law interpretation is involved. The new regulation might aid in solving this problem. New Regulation No. 5 covers the statement of cost principles forming a part of the uniform termination article for fixed-price supply contracts. It was found that certain provisions were impracticable and they were eliminated as were others found necessary to protect the interests of the government in view of recent income tax regulations.

**Eliminations**—Eliminated was a

provision that less an special facilities, with respect to which a contractor was entitled to reimbursement, should not exceed the adjusted basis of such facility for federal income tax purposes immediately prior to the date of a contract termination.

Another elimination was the provision that costs which, as evidenced by accounting statements furnished in termination under the Defense Appropriations Act of 1942, were charged off during a period covered by previous recompensation, may yet be subsequently included in the termination settlement if a refund is made for the period, or to the extent that such charging off is shown to avoid such refund.

It was reported that nothing comparable to this provision is applicable to completed contracts and the administration in connection with terminated contracts was found unworkable.

New regulation No. 6 delegates authority to all war contractors to make full settlement and not claim otherwise to them for less than \$1,000 where claimant has no disposal of the inventory.—G. H. S.

## Delivery of 10,001st B-17 Pooling Feat

West Coast production of Flying Fortresses through cooperation of Boeing, Douglas and Lockheed, hailed as remarkable industrial achievement.

Delivery of the 10,001st Flying Fortress on the West Coast was more than an industry production achievement—it spotlighted one of the most successful and unique war production pools in industrial history and was participated in by Boeing, Douglas and Lockheed.

On the final Boeing Flying Fortress delivered since April 1, 1943, 6,182 have been built by Boeing, 1,682 by Douglas and 1,728 by Lockheed. These three aircraft companies were brought together in May, 1941, in an unprecedented production pool organized to meet Army's demand for Flying Fortresses. It was passed to an outstanding example of the aircraft industry's willingness to put patriotic duty above its own interests.

**Started By Boeing**—Boeing had been the sole producer of Flying Fortresses prior to this date, the first of which made its original flight in 1938. Under the pool ar-

rangement, Boeing was charged with providing via engineering data and production information to Douglas and Lockheed. With the engine to be built at three separate points and with hundreds of subcontractors and suppliers furnishing subassemblies and parts



### FIRST PHOTOS OF FAIRCHILD C-82:

The new Fairchild C-82 cargo plane is being test flown to determine its full capabilities. The newest cargo plane engineered to haul greater supplies, armaments, supplies or troops over long distances, war-built at the Roswell, N.M., plant and made Fairchild's re-entry into the large plane field. Fairchild 10 years ago built the C-37, first plane designed for military cargo. Around Thielert, Fairchild chief engineer, is the designer of the radial-type plane, with 104-foot wingspan and 76-foot fuselage, mounted between two-boom extending from the twin engine nacelles. The plane is in the 50,000-pound class, with about twice the capacity of the DC-3, and has transoceanic range for a twin-engine plane.



each of the participating companies. This committee has met regularly to coordinate production problems.

Its success was attained in when a smaller committee was set up for nation-wide production program of the Boeing B-52 Superfortress, with Boeing again providing engineering and production data to other firms building the Boeing product.

## Wright Developing Turbine Type Engine

Vaughan pending 10,000 hp. units within next decade.

Discusses that Wright Avia-tical Corp. is entering the field of turbine type aircraft power plants as made by G. M. Vaughan, president in connection with the firm's 25th anniversary last week.

Vaughan says the corporation is looking forward to a new phase in power plant development with vision of a 15,000 hp gas turbine engine within the next decade and he foresees that the turbine form of power may advance aviation as much as did the radial.

► **Working at Jet Propulsion**—Vaughan said Wright's entry into this field was not a sudden change in the course of their engine development program but rather a logical and long considered step and that concurrently with the efforts toward progressive improvement of radial-type engine, Wright engineers have been working in the related fields of jet propulsion.

Vaughan says it is at their present to switch from the reciprocating engine to the gas turbine model. The reciprocating engine in the radial air-cooled form, he believes, will undoubtedly continue to be the leading power plant for air transport for some years to come in every category except high speed, high altitude and long range operation.

► **Seen as Next Step**—The gas turbine, in Vaughan's opinion, does represent the logical next step. An aircraft engine manufacturer such as Wright, he said, must be prepared with engines of low horsepower for light load, short range work; it must have engines in the medium horsepower range and in the range above 10,000 hp.

With the trend in aviation always toward higher altitudes, the aircraft gas turbine fits into this trend better than the current reciprocating engines, he says, be-

cause the inherent characteristic of the gas turbine enables it to attain the highest efficiency at high altitude and at high temperatures.

► **Used with Propeller**—Vaughan indicates that one type of Wright gas turbine will be an engine of high power built to drive a propeller. This is a departure from previously announced types of the jet principle engine, which produces propulsive power by direct application of the jet to the surrounding atmosphere.

While the principle of the engine has been known to engineers for years, only recently, Vaughan says, has research produced solutions to certain metallurgical problems which are the key to the whole development program.

## Market Research Standards Studied

AMA committee of specialists, headed by E. E. Lofthrop, former chief of ACCA department, to report at Chicago meeting next month.

Standards for aviation market research are being studied by a committee of the American Marketing Association composed of specialists closely associated with the industry.

Chairman of the committee is E. E. Lofthrop, formerly head of the research department of the Aeronautical Chamber of Commerce and now in charge of instrument and component parts division for the Bureau of Air Transport and Navigation of the U. S. Civil Aeronautics Board.

The committee was organized last spring, and its first report as a committee to the AMA will be made at the annual convention in Chicago Nov. 26 and Dec. 1. A special session will be held to which sales managers and market research specialists of aircraft manufacturing companies and airlines will be invited.

► **Research Standards**—The great number of aviation surveys being made led to appointment of the committee by Howard Whipple Green, president of AMA, with the objective of studying the economics of air transportation and of marketing aviation equipment and transportation. A primary goal, Mr. Lofthrop says, is establishment of standards of aviation market research so that surveys in the field can be evaluated.

Members of the committee in addition to Mr. Lofthrop, are Ross M. Cunningham, associate profes-

sor of marketing, Massachusetts Institute of Technology; E. H. Carrington, Jr., sales research manager, Wright Aeronautical Corp.; C. J. Stock, market analyst, Wright Aeronautical; Alex F. Star, executive assistant in charge of economic research, Consolidated Vultee Aircraft Corp.; Dr. Richard H. Bush, special assistant to the president in charge of planning, All American Aviation, Inc.; Dr. John Fensterwald, professor of transportation and industry, University of Texas; J. B. Bargant, acting manager of market development, Western Electric Manufacturing Co.; C. O. Peterson, chief engineer, aerospace division, Railway Express Agency; J. T. Huske, Jr., manager, market research, Republic Aviation Corp.; Alan Pomeroy, Department of Transportation, Research Division, Curtiss-Wright Corp.; Spencer A. Larson, director of air cargo research and associate professor of business administration, Wayne University, Detroit; and Harry B. Moore, director of research, Braniff Airways.

► **Date to Be Chosen**—Lofthrop says the AMA aviation committee intends to provide a mechanism for the exchange of information relative to marketing and distribution problems of the industry and to exchange information with other groups in the AMA—which is composed of market specialists in agriculture and construction—relative to the effects of aviation, as a transportation medium, on marketing as a whole.

AMA committees of similar scope in the past have accomplished much in establishment of standards of market research by which studies can be evaluated for their accuracy and completeness. The association as a whole provides a channel for development of inter-industry market information.

## Plant to Continue

Continental Motors Corp. plant at Garland, near Dallas, established to produce aircraft engines as a part of the war program, will continue as a post-war industry, according to Jack Reiss, president, who said the plant will employ about 1,800 workers.

Reiss said the company was in the power plant business and that power plants were needed. He thought the Garland plant would be used to serve the Southwest and that the personnel trained for the war effort would be used for similar post-war production.

## Air Industry Held Key to World Peace

Brooks Industries staff members urge Allies eliminate enemy's aviation and supporting industries and oil manufacturing plans to balk any new war threat.

The most promising method of controlling Germany and Japan after the war lies in suppression of their aviation industry and supporting aluminum and oil industries, under a plan proposed by Harold G. Moulton and Louis Marlowe, published recently by Brookings Institution.

The joint investigation by the two staff members of the Brookings Institution concludes the possibility for economic and military control of the two nations lies in curtailment of their production of aircraft parts as military and commercial aviation and aircraft production. Moulton and Marlowe also suggest restriction through control of aluminum ingot production and forbidding operation of synthetic oil plants.

► **Rationing Oil Reserves**—The survey proposes that Rumanian oil reserves be stripped within a short period of time to remove that source of supply from the German orbit of conquest.

It would be simple to do the job of Germany, it is said, to control aluminum ingot production without affecting employment.

Nearly percent of Germany's oil supplies now come from synthetic plants, Moulton and Marlowe estimate, and production of those plants would cripple a war rearmament program, particularly severe. Germany could not construct new plants inside of two years in the event of war. They conclude that stockpiling from imports would be possible, but assert that elimination of synthetic plants would eliminate the central position in the event of obvious hostilities.

► **Holding in Germany**—The two continental aluminum and oil, would serve to control the possibility of German resurgence, the investigators say, but taken alone would not prevent development of a powerful air force. Similarly, production of warplane manufacture would not be a complete safeguard, since military aviation could be quickly developed from a strong basis in civil aviation. It is suggested that because of this, Germany must be prevented



### NEW EXPOSURE SUIT:

No more than a teaspoon of water need pass through this exposure suit in an hour in icy North Atlantic waters.

The RCAF officer affirms that as the deck of an escort vessel would freeze within seconds if exposed to the cold wind overboard in full flying clothing, to test the new suit for Arcticus areas. None of the men reached his body—joined hands in these waters usually result in quick death from exposure.

from having a commercial aviation industry, from manufacturing aircraft or operating an air transport company. Germany would be given air service through other means. Private flying would be even difficult to control but banning all private flying is urged.

► **Japanese Industry**—Japan would be required to scrap her aluminum plants and expect recession. The winter point out that Japan has not been a consumer of aluminum for civilian purposes, the entire industry having been built for war. Japan would simply be permitted to have synthetic aluminum or refined metal with imports limited to those limited to refined oil. Moulton and Marlowe cite the fact that Japan would not need large reserves to wage war against Britain and the United States—secure of nearby areas being possible at some propitious time.

Flying at all types, as well as production of planes, would be banned.

## Helicopter Research Fund Proposed

C. L. Morris, American Society head, suggests \$10,000,000.

Helicopter engineering still has many difficult problems to solve and the industry needs sizable funds for research and development, according to C. L. Morris, president of the American Helicopter Society. Speaking at the first annual dinner of that group, held at New York's Plaza Hotel on October 1, Mr. Morris suggested a starting fund of \$10,000,000, possibly allocated to NACA so that the results would then be open to the entire industry. Mr. Morris noted that it "seems reasonable that the basic well-rounded research program funds should be granted by the government."

Igor Sikorsky and Col. Frank Griswold were awarded honorary fellowships in the society at the dinner and it was announced that the membership now exceeds the 200 mark.

In his acceptance remarks, Mr. Sikorsky declared that "no other engineering development has moved as fast as has the helicopter" and said there was no doubt about the "great future" of the craft. America is leading in helicopter development, he said, adding that the country should, through research and development, remain the leader.

## Convair Needs Help For Sea Wolf Bomber

Production of the TBV-2 improved type of carrier-based bomber will require 2,000 additional employees at the Alameda plant of Consolidated Vultee Aircraft Corp.

The torpedo bomber, known as the Sea Wolf, will join the Grumman Avengers with the fleet. It carries a crew of four—pilot, gunner, radioman and bombardier, and weighs approximately eight tons. No production or performance figures have been released by the Navy. Disclosures of production were supplied by the Navy Bureau of Aeronautics when Rear Admiral DeWitt C. Ramsey, chief of the bureau, and Capt. W. E. Johnson, pilot, made a statement stating that no production cutbacks were contemplated for that plane. The message described the TBV-2 bomber as "essential weapon... urgently needed in the offensive against Japan."

## WPB Maps Aircraft Advisory Division

New organization to handle civilian aircraft and aerospace side problems.

Establishment of an Aircraft Industry Advisory Division within the War Production Board to handle civilian aircraft and aerospace problems is under way as a result of a generally affirmative response from the industry to the proposal for WPB's division made by WPB Chairman J. C. Krug.

At a recent meeting, Krug recommended the Aircraft Production Board, of which he will be chairman. When Charles E. Wilson, who was chairman of the Aircraft Production Board left WPB, APE members voted to dissolve their unit and so recommended to WPB.

The proposal to dissolve APE as the theory that major production problems in the industry

had been solved has been tempered by pressure in some quarters. Two members, in addition to Wilson, left the Board at the time the dissolution was voted—Lieut. Gen. William S. Knobles, who was assigned to head the Air Technical Service Command and T. P. Wright, became Civil Aeronautics Administrator.

► **Pace Gets New Assignment**—Rear Admiral E. M. Pace, Jr., a member of the Board is also reported going on a new assignment as an entirely new board will be set up. It was understood the Board would not meet regularly, but on call of Chairman Krug, as aircraft production problems requiring board action arise.

Under the proposed set-up, APB will retain powers of scheduling, standardization, conservation and representation on the National Manpower Planning Committee, and in addition probably take back CMP, chemical agency powers which have been jointly held by the Aircraft Scheduling Unit in

Service and the Aircraft Resources Control Office.

► **Arco to be Absorbed**—ARCO's functions and personnel probably will be absorbed by the new Aircraft Advisory Division of WPB and the Aircraft Scheduling Unit and the industry division will allocate materials.

Whole dissolution of the Aircraft Production Board was recommended by the former members, this recommendation never was acted on. APB was set up by WIBS executive order and became WPB and many Agency officials believed it should continue in function as long as the European phase of the war continues and until all aircraft requirements for the Pacific War have been met.

## Oppose Move to Drop Arco From PEC

Plans which have been quietly proposed for reorganization of the Strategic Production Reserve Committee, with aircraft representation eliminated, are being opposed by both Army Air Forces and Navy Bureau of Aeronautics.

Proposals were being put out last week in WPB, the Army and Navy Materiel Commissions from a realignment of the production Executive Committee which handles and coordinates production cut-backs. It was the first action taken in regard to this committee since J. A. King headed WPB.

► **Test of AFAC, Navy Bureau Strength**—It was learned authoritatively that a definite movement was under way to drop Aircraft Resources Control Office from PEC representation. Whether it succeeds appears to hinge on the strength of AAF and Bureau of Aeronautics opposition.

Coupled with the movement to drop aircraft representation on PEC was a growing tendency within PEC to reduce or remove priority status of the aircraft program, a tendency which again found vigorous AAF and Bureau of Aeronautics opposition.

## Plane Plastic Plant

Plans for purchase of a 12-acre site at Atchison, Calif., for a post-war plant for manufacture of plastic parts for aircraft has been disclosed by General Electric Co. No further plans were indicated. The plot is near both the Santa Fe and Union Pacific railroads in the Los Angeles area.

## PRIVATE FLYING

### Four-Year Non-Engineering Course In Aviation Opens at Miami U.

Three basic curricula established stress various phases of vocational training in aeronautics; 34 freshmen, including 6 war veterans, enrolled.

By ALEXANDER MCSUREY

Thirty-five freshman college students, including four returned veterans of World War II, have enrolled in the first class of Miami University's aeronautics course that fall at Oxford, Ohio, one of the first non-engineering four-year college training programs in aeronautics to be offered in this country.

Three basic curricula established in the University's School of Business, School of Education, and College of Liberal Arts, emphasize various phases of vocational training for future aeronautics within the aviation industry, but all three courses use study guides for laboratory training at the rate of 10 hours a semester in addition to classroom work.

► **University Airport** — The flight training is being conducted at the University's 300-acre airport, until recently used in the War Training Service program. As a backlog of experience in flight training, the University has learned approximately 1,300 students in primary flight, beginning with a Civilian Pilot Training Program in 1948, and continuing with training of approximately 1,000 naval aviators, after the WPB program took over the CPT program.

Head of the program, Lt. Col. E. M. Albaugh, explained that Miami decided to concentrate on the non-engineering aspects of aviation education because of already well-established aeronautical engineering departments at nearby mid-western schools, and because of the recognized need for college training in sales, administrative, executive and teaching positions.

► **Summer Course** — The four-year course is being offered following completion of an eight-week summer school aeronautics course for business men and special students, in which 50 students completed

straight and it is expected that enrollment will be expanded considerably as this condition is remedied. George J. Webking, who operates the Miami Airport, has ordered six of the first ten new Aerocars Model 7 tandem tractors to be built, as soon as relaxation of material restrictions permit production.

► **Flight Training** — Flight training is being provided at the rate of \$15 an hour, or \$100 for twenty half-hour flight lessons each semester, and students wishing to take additional time may do 10% of their payment for each hour of flying.

Among students enrolled in the four-year courses are two physically handicapped young men, unable to pass the physical examination requirements as pilots. They have enrolled for the flight training laboratory course, however, and will take their flying time each semester in dual flight, to learn as much as they can about actual flying experience through this method.

Freshman classroom courses are much the same for all three curricula, including physics, mathematics, elementary aeronautics, English, and civics. By the time the liberal arts students complete their four years, they will have had courses in astronomy, calculus, aerodynamics, aircraft powerplants, aerodynamics, radio techniques,



## PLAN CIVILIAN AVIATION GAS RATIONING

Fred M. Lester, director of safety regulations for the Civil Aeronautics Administration, and W. L. Jack Nelson, CAA, discuss plans for allocation of 75- and 40-octane aviation gasoline to civilian flyers which will be turned over to the CAA Nov. 1. Lester will direct the program with the aid of Paul E. Young, acting director of CAA's general inspection division. Nelson, chief Assistant Secretary of Commerce W. A. Burden in arranging transfer of the responsibility from the Office of Price Administration to the CAA.

## New Speeds by Conventional Warplane

The 45 mph speed announced last spring by the chief engineer of Britain's Royal Air Force was exceeded by half a dozen Allied conventional war planes, and at least one conventional German twin-engine fighter. Ober Heinkel 209.

It appears that 45 mph will be the most announced indication of the best sought after for 100-mile figure this fall for every 100 year. There was a blip on in previous aircraft figures that indicated heavy emphasis on developing long-range Lightning and Mustang. Today the largest demand is for speed to cope with the Luftwaffe's jet-propelled fighters, units were reportedly manufactured several months before the appearance of the first American Thunderbird. While reported as a very fast and powerful fighter, it is not likely to be faster than the newest model of the Thunderbird.

Nothing is to be expected from the Spitfire's top speed has been reported more than 400 mph, or 400 miles per hour. Spitfire IX, two years ago. The MEBO Super XII, Griffon-powered Spitfire XII and Spitfire XIV, the latter with improved engine and five-bladed propeller, have been announced recently with may well exceed 400 mph.

Still more faster war planes are in production and operation, and officials say the claim for the world's fastest airplane may easily be settled for some time.



### 'EVEN A CHILD CAN FLY AN AIRPLANE'

That is what Al Bennett, lower right on the ground, tells his adult student pilots and new he is setting out to prove it with passengers ranging from five to 12 years old, giving both proud and air instructors a chance across planes at Middlefield, Ohio. The children are holding model Airverbs of various types while the instructor is counting them down banks and turns made.

cre and practice, in addition to various modern language, social science, English and speech courses. **Training for Foreign Passports**—The liberal arts course, it is believed, is particularly suited to training representatives sent by the American aviation industry to foreign countries, and was designed to meet specific requirements of one aircraft manufacturer, who particularly emphasized the need for foreign language training and cultural background for foreign representatives.

The business course includes psychology, money and banking, business law, business policy, government and business taxation and business, and a course in stress analysis, besides other concentrated courses, and electives.

The education course designed

to train high school aeronautics teachers includes special methods courses in training science, aerodynamics, mathematics, besides commercial and business, taxation and education courses. It is suggested that the prospective teacher will find industrial arts courses including metal and wood working, stamping, electricity, helpful.

### Heads NATA Group

Clarence W. Ludwig of Ludwigs School of Aviation, Tampa, was elected governor of the Southern (Regional) Region of the National Aviation Trade Association at Miami, Fla.

Tom D. Eve, Southern Airways manager at Charlotte, was elected president; Franklin Krupp of Kaappa Flying Service, Clermont, Tenn., vice president; Mrs. Margaret Hayes of Atlanta, editor; Southerner, Southern Airways publication, secretary-treasurer.

The session was held one day prior to the Georgia Aviation Clinic. Homer Turner, national president of NATA, and John Wilson, national NATA manager, attended.

### Town Votes Airport

The town of Russell, Kas. (population 4,113) has approved, by

a vote of three to one, issuance of \$50,000 in bonds for construction of a municipal airport.

### CAP Pushes Local Port Development

Members even contribute service in manual labor toward advancement of community projects.

Probably the most realistic contribution now being made at small airports nationwide is due to present and past-veterans in the work of Civil Air Patrol through its local units in widely scattered parts of the nation.

Not content with merely promoting local airport plans, CAP members and cadets are turning out in force to donate their services in manual labor toward advancement of the community airport projects.

**Eleven Projects**—Already reports have been received of eleven airport projects in which CAP is participating.

• **Potomac, N. Y.**, CAP members leased a building from Clarkson College, cut and cleared 50 acres of hay for sale to soil the airport land, and leveled the 180-acre field establishing 1,800-foot runways, installed a gas tank, remodeled a barn into a two-plane hangar, remodeled another building for operations office and classrooms, built roads from the highway and cleaned parking space.

• **Savannah, Ga.**, CAP's new airfield on Wadmalaw Island, has just been dedicated, has a flying service operating with nine private planes already based there and others expected.

• **St. Paul, Minn.**, CAP members working with University of Minnesota personnel, contractors and union personnel, contributed labor and equipment to remodel the regional airport used by CAP.

• **Three Rivers, Mich.**, sold its old airport and is buying a new one and CAP volunteer workers reported to clear the new field's runway.

• **Fairfax, Va.**, stimulated by CAP, has purchased a 100-acre field through contributions of citizens, with plans for three landing strips, the longest 3,000 feet long.

• **Cairo Airport** has been acquired by Syracuse, N. Y., squadrons of CAP. The turf field, 9 miles from Syracuse, is a 60-by-180-foot hangar, clubhouse and operations office.

• **Brentwood, Neb.**, City Council has approved plans presented by

# The Birdmen's Perch



Last month we showed you the comic cartoon of Puch Pilot (Or) which you see in Little Known Facts About Well Known Places. But this month's cartoonist is a Stellar Finch Pilot, who takes us Little Known Facts. So that's good enough to print, we reason.

We put Robert Edmund Fielding's name in there just to show him what it would look like, because he's got only four more Little Known F.A.T.s left.

He's got his Finch Pilot (Or) rating with this "Fact":

There is a fighter known as the XP-59 which is a four-wing, single-hangar, gear, radial engine job. Never heard of it? It's really just a P-39 fitted out with radial for experimental purposes.

Thank you, Bob. Your contribution is on the way to \$102.25! Brooklyn 4, N.Y.

Time eight!

### Major Al Williams,

alias "Patented Flying Fox," Gulf Aviation Products Manager, Gulf Refining Company, Philadelphia 33, Pa.

WATCH OUT FOR A TOO-RICH MIXTURE, IT CAN CAUSE ENGINE "BALLOONING!"

AS WELL AS REDUCED POWER AND EXCESSIVE GASOLINE CONSUMPTION.

AND THIS IS CERTAINLY NO TIME TO BE WAITING A DROP OF IT.

AVIATION NEWS



Suppose you had a red, round, ripe apple. Suppose you ate a bite and peeled skin apple. Would your apple be good for eating?

Now! Holdin' made-away from nutty winin'-clash'd by carbon and sledgehammers, this would maybe give you trouble. But if you added another step to the peeling — the skin — then you'd get a high per cent of that appleskin meat.

And if you had light would be Gulfpride?

We do the following lighter job to help you to understand. After the Gulf war with gasoline charts, we knew how important the protection of aircraft fuel was. So we developed a series of instructions or compressed readies so you can make decisions you don't have time to think about. And we've got a lot of them. You know they're better to eat — our Gulfpride. You know they're better to eat — our Gulfpride. You know they're better to eat — our Gulfpride.

Gulf Oil Corporation and Gulf Refining Company...makers of

**GULF AVIATION PRODUCTS**

Oil is Ammunition—Use It Wisely





#### GLOBE AIRCRAFT'S NEW SWIFT:

The new Swift, to be manufactured by Globe Aircraft Corp., at Fort Worth, Texas, after the war, will embody new features, the company says. Among them are a bubble-type canopy giving 360 degree vision, remarkable landing gear, flaps,帛式 ejection seat with directed air inflation and heater and a roomy, double cabin.

## Plane Gas Ration System Revised

Fliers are required to file applications or turn in coupons after Nov. 1.

Individual plane owners or operators will not be required to surrender coupons for gasoline by their craft after Nov. 1, when Civil Aeronautics Administration rationing program goes into effect.

Allanson requests are now in the hands of airport operators and others customarily purchasing quantities of aviation gasoline. These requests were scheduled for

return to the chief of the General Inspection Division of the CAA in Washington as Oct. 15 to enable issuance of ration checks prior to Nov. 1.

**New System**—Under the new system, the Petroleum Administration for War has made an adjustment of aviation gasoline to CAA for use in civil aircraft engines. This is in the form of a reducing check, deposited in Higge National

Bank in Washington. Checks will be issued by the CAA to handlers of aviation gasoline, who must surrender a check to suppliers for any gasoline delivered after Nov. 1. The airport operator then will be required to keep a record of gasoline deliveries at his pumps. This record will be sent to the CAA

such month. Owners of planes will not have to file applications or turn in ration evidence for gasoline.

months for aviation use than at any previous time, so that allocations, particularly during the winter, should be ample for all legitimate uses. Additional allocations can be obtained by justification of requests for more fuel.

**Aeronautics** — Regulation 304, which governs distribution and use of aviation gasoline, prohibits barnstorming, nightsewing, and pleasure flying, but permits use of pilot training, transportation of persons and cargo, maintenance of pilot skill and aircraft and aircraft engine airworthiness, and commercial flying, including charter operations, crop dusting, aerial seeding, soil conservation, forest patrol, power line and pipe line inspection, police mounted, and similar essential activities.

Airport operators and others are restricted from delivery of aviation gasoline except into airplane tanks and to engine test stands.

## **Physical Handicaps No Bar to Pilots**

Regulations on flying certificates relaxed where disability does not prevent applicant from learning to operate plane safely.

Physical handicaps such as loss of limb, limitation of motion in joints and wasting of muscles, as long as need be a serious obstacle to obtaining a student or private pilot certificate, if the applicant can prove his ability to fly safely. T. F. Wright, Civil Aeronautics Administrator has announced.

A new Civil Air Registration program, permits a medical examiner, to issue a student certificate, with a statement of the applicant's "unexceptional" hearing, if he is otherwise qualified. His instructor determines when he is competent to solo, and when he has sufficient experience and is competent to pass flight test for a private license. The handicapped pilot then demonstrates his ability before a CAA flight inspector, and also may be required to perform other maneuvers which the inspector requests, in view of his particular disability.

**Not Applicable to Active Diseases**  
—It is emphasized that the new ruling refers only to structural defects and not to conditions due to active diseases. The Administrator

may limit the handicapped pilot to operation of certain types of planes or plane suitably modified.



## ONCE THERE WAS A JAP FLYING BOAT . . .

It is namely small planes now — thanks to the deadly aim of an American gunner aboard one of our huge Consolidated Liberators. These men on the firing lines of the air are doing a magnificent job . . . and American industry is bucking them up with the finest aircraft in the world.

Every-one at CECO is privy that CECO radiators and fuel pumps on the newest great Liberators and other warplanes play a direct part, however small, in helping bring Victory closer.



CARBURETORS  
FUEL PUMPS  
PROTEK-PLUGS

**CHANDLER-EVANS CORPORATION**

SOUTH MERIDEN,  
CONNECTICUT, U. S. A.

cial director in Washington, and a flight test by CAA inspector before they could begin instruction, in addition to the final flight check for private license. The new ruling is seen as another step in simplifying private flying regulations.

## Georgia Governor For U. S. Air Control

"A small, in speech, at Macon Aviation Clinic, defiance regulation is properly a federal function."

Georgia government and aviation leaders favor federal control of the air. This developed at the recent Georgia Aviation Clinic at Macon, Ga., where a Georgia State Aviation Association was formed to advance aviation and propose legislative action setting up a full-time aeronautics directorship as part of the state government.

A resolution creating the Aeronautics section of the state should not be allowed to stand until it should take to have set up a "permanent Bureau of Aeronautics empowered to exercise only such powers and to promulgate only such regulations as, while consistent with public safety and convenience, will not unduly hamper or impede the expansion of air industry and travel."

► **Annull Stomage Point**—Gov. Ellis Arnall, in an address to the clinic, also emphasized this point. He declared his belief that air regulation was properly the province of the federal government and said he would encourage the legislature to see that Georgia does not set up barriers against expansion of aviation.

"I want Georgia to become the outstanding example of how a progressive state can foster the development of aviation," he said.

He said he thought the aviation industry should pay state taxes and aviation gasoline taxes, but that those revenues should be used to build up the industry within the state.

► **Councilman Named**—A Georgia executive committee headed by Major Charles L. Bowden, of Macon, was selected to present a organization of the State Aviation Association. The association is to consist of a board of representatives from each of the ten congressional districts.

The Association, with urge that the next legislature, meeting in January, establish a three-man Aeronautics Committee to be appointed by the Governor and em-

ployed to name a full-time, paid director.

► **World Supersonic Advisory Board**—The Commission would supersede the present Aerometric Advisory Board. The present Board was appointed by the Governor to advance aviation but it lacks authority beyond that to make recommendations to the Highway Department and the Governor.

The new commission would be authorized to receive and disperse funds due airport construction, maintenance, and so on, and aviation gasoline tax revenues would be ear-marked for it.

## City Attorney Rules On Post Injunctions

City attorney of Wichita, Kan., has ruled that apprehension over law flying above cities because of the fear of hitting buildings is not grounds for seeking an injunction against an airport operating in proximity to residential areas. He said injunctions have not been granted by courts because of low altitude flying.

However, residents living close to airports can obtain injunctions on grounds that the field is a nuisance because of noise, wind or dust. "We have found no defense from courts of law except a right of action, however," he said.

► **Followers Protest**—Falling came after a protest was filed by 200 citizens living near an airport alleging the planes taking off from the field harshly skinned the roofs of their homes. They had asked the city commission to enjoin the airport operator. The city attorney pointed out the city ordinances prohibit flying over the city at less than 8,000 feet, except when granted altitude on landing and take-offs.

"In case of a violation of the ordinance in this case, the violation would be made by a person taking off at 8,000 feet at a private part outside the city where the city has no jurisdiction to make an arrest, and the city has no authority to enjoin the owner of the airport to disallow the name of the pilot or the student flying the plane."

Wichita's ordinance governing operation of aircraft over the city prohibits landings and takeoffs within the city limits, except at the municipal airport (which is six miles from the city proper but is within the city limits).

► **All Officials Study It**—Aviation

leaders who are sponsoring the proposed airports plan for Wichita are reviewing the city's attorney's ruling and the city ordinance with interest. Under the present ordinance, airports would not be possible unless they were contained to be a part of the municipal airport. The fact that citizens near a small airport are complaining also is causing some worry. The airport in question, however, has much shorter runways than those proposed for the airports.

## Texas A. & M. Opens New Aviation Course

A two-year course in aviation operations management, established at the request of the industry, is being started this month at Texas A. & M. College to train airport and fixed base operators managers.

Training in aircraft and aircraft engine mechanics sufficient to prepare students for the Regent Mechanics examinations will be given, along with flight instruction, to qualify them for commercial instructor and examiner examinations, according to Dr. Paul W. Barlow, acting dean of engineering.

► **Related Studies Planned**—In addition to required work, related studies will be given in applied mathematics, report writing, sketching and plane reading, aviation ground school, airport management, airport layout, airport accounting.

The course qualifies under terms of the G. I. Bill making returning war veterans eligible for government benefits if they desire to take the course.

## To Train Vets

Eckley-Riddle School of Aviation, Miami, has contracted with Veterans Administration to help ready its accommodations up to 500 men immediately to teach technicians rotation as aircraft and engine mechanics.

► **To Help Blanket Men**—Thousands of additional men will be trained after Germany and Japan fall, since the present includes training both of disabled veterans under the rehabilitation program and service men under the G. I. Bill of Rights.

In its war-training program, Eckley-Riddle provided instruction for some 22,000 Army and Navy cadets in flight and technical subjects.



## "I caught Hell in Heaven last night"

\* \* \* Screaming through the grim night . . . one of the Ann bombers come . . . goes blinding. Falls into my plane . . . a spark leaps to flame. Then, down . . . down in a screaming dive . . . smoke spewing out behind. The wings must have burst or shot . . . "Out! . . . Out!" Thus my chest opened. Thank God for a good parachute!

\* \* \* "Thank God for a good parachute!" Yes, a parachute is a man's last chance when his plane is shot from under him. Eagle's "Know-how" and precision sewing make that chance the best possible. Every Eagle Parachute must be perfect. Our expert craftsmen meet that challenge today. And participation in our pledge for precision products, tomorrow. Watch for the Eagle Wings . . . on refined aviation textile products for precision use when Victory is won.

IT WAS EASY TO TRAIN  
FOR YOUR OWN PLANE FIGHTING

### ATTENTION EXECUTIVES:

Our facilities are available for the cooperative development of new quality textile products for precision use. Your inquiries are invited.

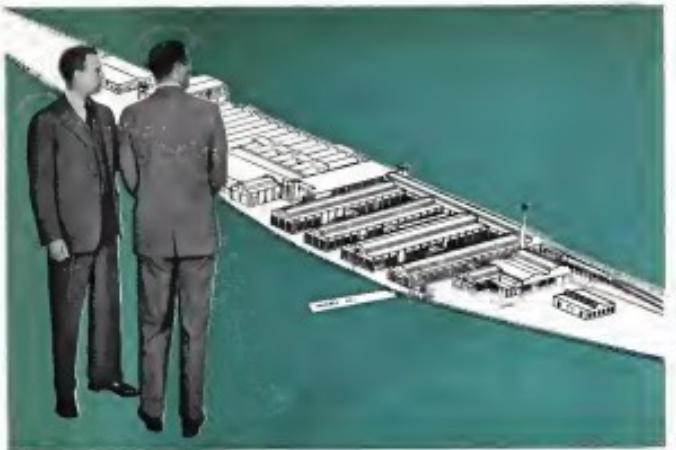
C. J. Fullerton,  
President



**EAGLE PARACHUTE CORPORATION • LANCASTER, PA.**

*Serving the U. S. Army Air Forces and the U. S. Navy, Bureau of Aeronautics*

AVIATION NEWS • October 26, 1944



100,000 SQUARE FEET of new continuity layout space. In the modern, streamlined Reynolds plant aluminum produced in other Reynolds plants is cast into parts for today's wartime engines.

## REYNOLDS ALUMINUM:

...now a new service, in a great new plant

**T**HROUGHOUT the aircraft industry, Reynolds is known as the leading producer of sheet aluminum, fabricated aluminum parts and aluminum forgings for warplane production.

Now Reynolds rounds out the scope of its services with the addition of complete facilities for aluminum casting.

This latest expansion comes in answer to a request for help. Aluminum alloy parts, high in physical properties, were needed for aircraft to power warplanes.

Conventional sand-mold casting was tried... but the real solution was found to be in the use of the permanent mold process—a truly difficult operation.

Reynolds found that superior quality alloy castings of this type were being produced in a plant in England. The vital technique was bought out and brought to America—and the man—needed still, however, the right resources.

From this point on things moved faster and faster!

On May 25, 1944, a pilot plant was set up. Six weeks later—the first casting was produced, a casting judged perfect by existing aircraft foundries.

Six months later—and Reynolds is producing castings as a permanent mold line in a modern plant at Springfield, Mass. But the story does not end here.

### A PROMISE FOR TOMORROW\*

After the war—the output of this plant can be increased five-fold. Five thousand men can be employed in casting parts for passenger automobiles, refrigerators, washing machines, vacuum cleaners, sewing machines, and hundreds of other products.

Whatever your problem, maker—or to maker—remember, if they concern sheet metal—sheet, fabricated parts, forgings or castings—you'll find Reynolds resources, equipment, and skill ready to help you! Reynolds Metals Company, General Offices, Box 2000, Virginia, Alabama Division, Louisville 3, Kentucky; Springfield, Mass. Sales Offices in 25 principal cities.



GEAR CASE, made from aluminum alloy, cast from permanent mold at the Reynolds Metal Company plant, Springfield, Mass.

## THE AIR WAR

### COMMENTARY

## Jap Steel Industry Has 'Priority' In Missions of Superfortresses

Vulnerability of Nipponese heavy industry makes plants strategic target; seven recent missions were made against male enemy steel centers.

Not counting the shakedown mission against the railway shops and unloading yards in Biaknak (June 1), seven of the eight B-29 missions dispatched to date have struck at Nipponese steel production. This emphasis on steel indicates a striking difference in the evaluation of targets in the Asiatic war, compared with the strategic air objectives in Germany—fighter aircraft, oil, ball-bearings.

Reasons for this is obvious. Incorporated as steel in all aspects of Japanese war effort, Germany's warlike iron capacity of 25,000,000 tons a year plus as much again required by conquest, made it impossible to strike the steel industry hard enough, often enough to affect front-line battle strength.

**Japan's New Heavy Industry.**—When Japan went to war with China in 1897 her industry was defective in two respects. It was light, with too many factories turning out textiles and costume goods, and too few producing steel, machinery and chemicals. Japan, herself, was also poor in the raw materials of iron—coal, iron ore and manganese—possessing less than one-half per cent of Japan's steel production. This was on June 15. It was attacked again the night of July 7, and a third time in a smashing day and night bombardment since Aug. 29.

Specific targets included the coke ovens plants, blast furnaces, electric power plant, open hearth furnaces, foundry, etc. The nearby industrial city of Nagasaki was attacked by the Superfortresses on Aug. 10, targets including Mitsubishi Steel Works and the huge shipyards. Shipping in Japan's Adantic fleet, and this gives the air offensive against steel a special significance.

**From Plant to Poppy State.**—Japan has realized her vulnerability to air attack and has been forced to decentralize much of her industry, moving it away from crowded cities. This is difficult in the case of the steel industry, and part of the answer was the development of Manchuria. With their deep military penetration of North China the Nipponese warlords figured they had protected their puppet state Manchukuo from bombing. Superfortress attacks have staked that reality.

First blow against the bog shows Steel Works at Amman was July 29, a daylight raid with good results. Another daylight attack by a "large task force of 100 B-29 Superfortresses" was carried out against Ando, Sept. 8, again with results reported "good," and only one aircraft missing. Sept. 27, "a large force of B-29 Superfortresses" (more than 100 aircraft) struck for the third time at the Shouwa Works, through a heavy cloud cover.

It will be noted that the B-29's are universal bombers, equipped for night missions, daylight precision missions, and for bombing through overcast. Shouwa Steel Works, Amman, second only to Tewasai, is vital to Japan's steel program, as they do not depend on iron from overseas as do the steel mills at Yawata, Osaka, Tokyo, etc. Crapping Amman is a strategic blow of the first order.

—NAVARMON



### NEW GOGGLES AND MASK:

Adopted as a new type of improved flying goggles, the B-8, was standard equipment for the AAF, manufactured from Wright Field, is similar to the present mask of the difference appearing in silhouette with earlier types of goggles. Equipped with a one-piece plastic lens fitted into a special nose arch, the new goggles fit perfectly with the new aviator's equipment.



## PERSONNEL

**Joseph D. Bayliss** has been appointed regional cargo traffic manager for American Airlines. For a number of years Bayliss was connected with sales and marketing departments of container express companies. Prior to his appointment with American Airlines, he was employed as a manager with the U.S. Army Transport Corps in New York. His headquarters will be in the Airline Terminal Building in New York.

**Allen E. Strasser** has been named controller for Curtiss-Wright Aircraft Division Research Laboratories to supervise the accounting and financial policies of the laboratory. At the outbreak of war, Strasser was director of operations of U.S. Caribbean air bases.

**Clarence L. Siegel**, former General Electric assistant district auditor in New York, and president and executive manager of the New York Credit Mktg. Assn., has been elected secretary and assistant treasurer of Lucentine Aircraft Corp., Stamford, Conn. He succeeds manufacturer of all-weather electronic instruments and metal parts for military aircraft.

**Kenneth H. MacDonald** is the head of the new Aviation Department of the San Francisco Chamber of Commerce. The new department has been established in part of a program to make San Francisco the passenger and freight air terminal of the country. MacDonald has been working on cooperative coordination work for the Aircraft War Production Council, Inc., West Coast, for the past year and a half. He will work on cooperation with Walter A. Barlow, manager of the trans-Pacific division of the Civil Aeronautics Board, and will regulate and rate making matters. The Bay Area Aviation Committee, with which MacDonald will work, was organized by the Chamber of Commerce.

**Henry E. Mobley** has been named assistant to the president of United Aircraft Corp. Mobley joined the



grable relations staff of United in May, 1942, and was named assistant director of advertising and publicity a year ago. He maintained public relations offices in New York prior to that time. He was a reporter with Associated Press for eleven years, during which he was chief of the New Jersey Bureau.

**Joel Whitney** (photo), director and manager of Ryan Aeronautical Institute, was named chairman of the San Diego section of The Institute of Aerospace Engineers. Whitney was with Associated Press for eleven years, during which he was chief of the New Jersey Bureau.

**Ernest G. Wood** (photo), formerly manager of the San Diego section of the institute, has been with Ryan for four years and previously was a technical instructor of the Army Air Forces aviation cadets at Ryan School's primary pilot training program. Other members of the San Diego section are George C. Beck, Maxine Van Cleaver, Frank Schenck, treasurer; Francis Thornburg, recording secretary, and Charles L. Blaha, corresponding secretary, all of Consolidated Vultee Aircraft Corp.'s engineering department.

**Norman W. Stever** and R. L. Smith have been appointed staff consultants to the Missouri division manager of Continental Airlines. Stever, a former member of the contract department staff, will be in charge of contract terminations, while Sullivan, who is chief development liaison engineer, will

report directly to the division works manager.

**Austin Transball** has been made resident representative of United Air Lines at the Douglas Aircraft Corp., in Santa Monica. Transball has been in the reservations department of United since 1939. Transball is a native of Denver, Colorado, of Dutch ancestry, and will assist in United's DC-3 and DC-4 program. He also is representing Aeromaritime Radio at Douglas.

The council of the Royal Automobile Society has awarded to Mr. Commissaire Francis Whittle, a fellow of the society, its gold medal for inventing jet propulsion. This medal is the first to have been given to a Briton. It has been awarded on seven previous occasions, in 1910 to the Wright brothers; in 1912 to Prof. Octave Chanute; in 1915 to Prof. Sir Frank Whittle; in 1928 to Prof. Frank Whittle; in 1937 to Sir Hubert Gloster; and in 1947 to Juan de la Cierva, posthumously.

**B. T. Clark**, former assistant general traffic manager and district traffic manager for Chicago and Southern



Ashburnham      Chase

Air Lines, has resigned and will be succeeded by George F. Gould. Norman Ashburnham, district traffic manager for Chicago and Southern at Memphis, has been promoted to the position of revenue auditor for the company. He is succeeded by Lloyd E. Cuthbert, former manager of eastern overhead.

**J. G. Hallinan** (photo) has been appointed general manager of continental Air Lines and the Continental-Douglas modification center. He will head the continental maintenance section of the modification center and handle flight maintenance for both the modification center and the air line. Hallinan has been a general manager of the Douglas Modification Center on Douglas Field since 1938 and will fill the vacancy left by the resignation of Terrell Driskill, who was also vice president of Continental, and who has now joined American Airlines.

## HOW THIN ALUMINUM TUBING IMPROVES HEAT TRANSFER UNITS



...and how Clifford's aluminum brazing makes it possible

Today, several famous types of planes of the USAF are flying higher, farther and faster because of the Clifford Feather-Weight Oil Cooler and Coolant Radiators pictured on this page. Their all-aluminum structure saves 50% the weight of their copper predecessors and throws in longer life as an extra dividend.

When heat transfer units call for lighter weight and more "give," men who know specify Hydron seamless aluminum tubing... brazed intimately to header plates... by all-aluminum alloy ...

brazed by Clifford's exclusive patented method. For, Clifford Feather-Weight Heat Transfer Units provide, for the first time, greater resistance to temperature, pressure and vibration in elliptical and oblong designs as well as in conventional circular cross-sections.



**CLIFFORD MANUFACTURING CO.**  
262 S. First Street, Somerville, Massachusetts



**CLIFFORD**  
First with the Facts on  
**HYDRON**

\* ALUMINUM BRAZING  
\* HYDRAULICALLY FORMED BELLOWS

## AIRCRAFT PRODUCTION

### New Light-weight Ranger Engine Presages Plane Design Changes

12-cylinder V-type power plant developed for post-war commercial use is believed particularly adaptable to feeder line operations.

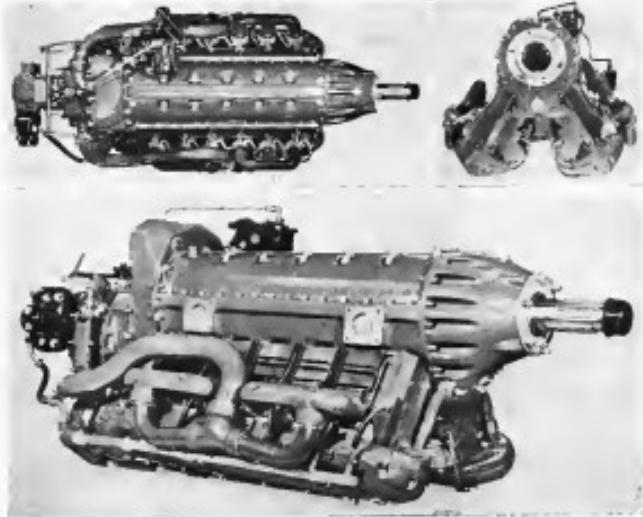
A new light-weight aircraft engine, aimed at the post-war commercial field with feeder line operations especially in mind, has been developed by Ranger Aircraft Engines Division of Fairchild in a move that may forecast new designs of aircraft construction through the adaptability of the power plant.

The 12-cylinder V-type engine

is air cooled and weighs but 870 pounds, complete with standard accessories. It develops 700 hp for takeoff with 100-octane gasoline and fuel, nearly one horsepower per cubic inch displacement.

► **Engine Inverted**—Like other Ranger engines, it is inverted, that is, the cylinders extend below the crankshaft rather than above, as in conventional inline types. This

Budd explained that a minimum of air is required for successful cooling and this fact, coupled with the compactness of



The Ranger Engine: Upper left, top view; upper right, front view; below, three-quarter front.



**Pattern Indication** gives the pilot a visual "picture" of his attitude at all times, regardless of the degree of bank, climb, or dive.



**No angular limitations!** The Sperry Attitude Gyro indicates pitch and bank without any angular limitations!



**No caging!** Because there are no angular limitations, the instrument never has to be caged... not even in scrubbing



## Attitude Unlimited!

New Sperry Attitude Gyro provides pattern indication . . .  
has no angular limits . . . needs no caging!

**W**HEN YOU NEW Sperry Attitude Gyro Indicator's pilot can, for the first time, loop, roll, dive, climb, or fly at any angle with visibility, sees and still always knows the attitude of his plane relative to the earth.

The spherical dial is marked to provide the same "pattern" type of indication whether by daylight or by artificial light . . . a single glass tells the story.

The suspension for the spherical dial of this new Sperry instrument allows full 360° freedom of indication in the

roll and pitch axes of the airplane.

A servo gyro spanning at 33,500 rpm, stabilizes the sphere and keeps it erect in relation to the earth's surface. The sphere actually rotates around the indicating sphere.

The Sperry Attitude Gyro makes instruments flying safer, easier, and facilitates maneuvering and accurate training.

With it there is no possibility of the gyro tumbling, even in extremely turbulent air. And, of course, its advantages in costing are obvious.

**Sperry Gyroscope Company**

INC. GREAT NECK, NEW YORK • DIVISION OF THE SPERRY CORPORATION

Gyroscopes • Electronics • Automatic Control Systems • Space-Mechanisms



## Highways of the Skies

People will fly!

And a lot of fast express will take to the air tomorrow.

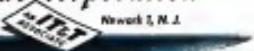
To guide this vast new air traffic safely from ground to ground will require new conceptions of instrument handling, ranging and marking equipment. Federal has had long experience in making serial navigation equipment. Now, at the great Federal Laboratories, still newer and better means of three-dimensional traffic control are being developed and perfected.

Here is the logical place to start your plans for tomorrow — one design-and-manufacturing organization ready to plan ahead with you. Get acquainted with Federal now!



*Federal designs that cuts margin of performance into a radio communication system—built-in a great variety of frequencies, wavebands, power requirements and forms for space, mobile, permanent and magnetic, mobile and aerial applications.*

## Federal Telephone and Radio Corporation



Newark, N. J.

design, makes the engine suitable for unpowered installations where the engine is contained within the structure of the wing or fuselage rather than extended from the nose or leading edge of the wing. **Five Major Units**—Basically, the new engine is composed of five major units, the crankcase and cylinders, the right and left engines, the nose section and rear section. In disassembling, all can be removed by a single mechanic without use of a chain hoist and with a minimum of time and special tools.

Boards and the engine will be available with two propeller ratios during the year 1946, 1.85 to 1 and 2.37 to 1. Pitcher reduction gears are employed. At 3000 rpm for take-off, the propeller shaft speed is reduced to 2500 by the first ratio and 1838 by the second.

Piston sections are made of aluminum alloy. The six-cylinder crankshaft is dynamically balanced and connecting rods are of the link and blade type. Overhead exhausts operate the valves mechanically on each bank of cylinders. Ignition is by high tension dual magneto. Pressure lubrication is of the dry sump type. Oil is transferred through drilled passageways. The hollow accessory drumshaft at the main of gallery. Sumps and spray lubricate the cylinder walls, piston and piston pins. Valve mechanisms are pressure lubricated.

### REVERSING SWITCH THROWS ON CONTACT WITH GROUND



**Air-Breaks Propeller Use:** The aircraft sketch at left illustrates the principle of aerodynamic braking now out of the test stage and scheduled for use on a four-engine Army plane. The sketch at right shows the

bounces or turns, or to sign-off strip in contracts where the claim against the government is less than \$10,000.

## Reverse-thrust Prop In Quantity Output

Units produced by C-W for four-engine Army plane.

Use of reverse-thrust propellers has passed from the experimental stage and propellers of this type are now in quantity production by the Curtiss-Wright Corp for use on a large four-engine Army plane.

Totes with the aerodynamic brake principle of the reverse-thrust propeller on a four-engine plane showed use of thrust from reverse propellers was equally as effective as mechanical application of the wheel brakes. Curtiss-Wright engineers predicted use of the principle on commercial planes after the war will permit lightening of the wheel brakes on aircraft equipped with the new type propellers.

**Angles of Blades Changed**—Breaking by reverse thrust is accomplished by changing angles of the propeller blades to negative pitch to generate the backward thrust. It does not reverse the rotation of the blade.

The use of the propeller in combination with brakes results in a great reduction of landing time. Declination, engineers report, is exceptionally smooth and its application to commercial planes should increase passenger comfort in landing operations. The system reduces landing time after landing increases maneuverability on the ground and reduces tire wear.

This advertisement is one of a series which is appearing in national magazines and newspapers on Consolidated Vultee's contribution toward a clearer public understanding of transportation's role in the war, and its postwar opportunities and responsibilities.

## To Australia—AND BACK—

in 95 hours and 20 minutes!



**1** 12:00 midnight Sunday: A huge Lockheed Express is loaded onto a truck (left) and driven to a spot on the tarmac. The die-punch clouds off as the round-trip flight for CONSOLIDATED. The military airline established in 1942 by Commandant of the Air Transport Command.



**2** 10:30 p.m., Tuesday: The Lockheed Express takes off from the tarmac. The Lockheed's high priority cargo—stealth bombers—becomes almost too tall for the U. S. A. A new "Ferry Express" flight crew picks up, loads aboard and the great transport streaks down the runway for the return trip.



**4** In her, CONSOLIDATED flyers have made 19½ round trips between the U. S. and Australia—totaling 21,000 miles without accident, except for high-speed record. The original Lockheed Express pilot, the Australia run has now completed 40 round trips and is still going strong!



**5** Some of us, CONSOLIDATED flyers, are the first to bring back forty drivers who had driven boats over the treacherous Northwest Passage, today at their command of less than twenty engines and parts, medical supplies, and ammunitions—in short, any supplies that are needed fast by our fighting men "Down Under."



**3** 11:15 p.m., Thursday: The Lockheed reaches Bangkok, Thailand, after its 10-hour flight. CONSOLIDATED planes No. 12 (bottom left), 13 (top left), and 14 (both bottom right). Since a 10½ hour nonstop, 9½ hours, 20 minutes ago, the last flight Lockheed Express has logged 19,000 miles over the Pacific—on Australia's west coast.



**6** After the war, long range transports will once again be used for express delivery services of importance. The Lockheed will also have another role to fill—SAC's permanent Air Force can become Australia's strategic transport in the interests of a lasting peace.



No spot on earth is more than 60 hours' flying time from your local airport



### QUICK FACTS FOR AIR-MINDED READERS

**Aircraft: "Milestones"**—On the way to Australia, the Lockheed Express has made more than sixteen Atlantic Ocean crossings.

**Life before "Ferry Express"**—One of the smallest countries to use the Lockheed Express is Australia. "Ferry Express" has added + more aircraft to its fleet since "Ferry Express" was first used in 1942. The Lockheed Express has helped to keep Australia's air force in the lead among other Commonwealth air forces.

**Reason: "Safety"**—With 20,000 air miles, there are 100,000 miles more as a measure of safety. The Lockheed Express has been the most reliable aircraft in the history of the world's commercial airways.

**Consolidated Airlines** is the largest airline of airplanes in the world.

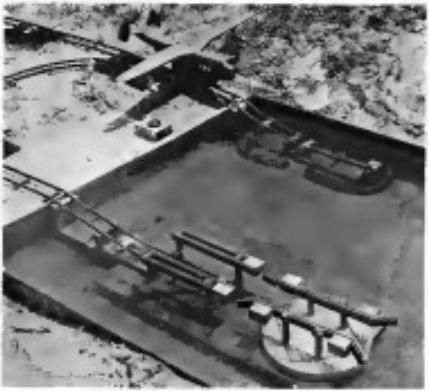
See Hugo, Calif.  
Vallejo Field, Calif.  
Sacramento, Calif.  
Tulare, Calif.

See Worth, Texas  
New Orleans, La.  
Mobile, Ala.

Atlanta, Ga.  
Baltimore City, Md.  
Brentwood, Tenn.  
Benton, Tenn.

**CONSOLIDATED VULTEE AIRCRAFT**

**CORPORATION**



**Model of New Beaching Gear.** Louis Frank J. Walters has constructed this working model of the beaching catapults for large flying boats at Naval Air Station, Corpus Christi, Tex. In background is the model of a Marine Mariner modified as assault air ready for beaching. Foreground shows infrared range approach optics.

## New Method Eases Seaplane Beaching

System devised by Navy engineer simplifies handling of flying boats of *Marin* and *Martian* class.

Details of an improved method of beaching large seaplanes (AVIATION NEWS, Oct. 2, page 83) have been disclosed by Glenn L. Martin Co. The method, devised by Lieut. Frank J. Walters, USN, is one of a series of new systems being developed to handle flying boats of the PBM Mariner and JRM Matador class quickly and efficiently.

Installation consists mainly of a ferry type slip mounted on floats, a set of guides, a cradle car and rails. A turntable approach section may be substituted for the ferry slip. Both turntable and slip form automatically to wind direction by means of winches. Guides and supports are made of various sizes of angle-plate, making it possible to use the same installation for PBMs and the Matadors.

**Beaching Gear Eliminated.**—The whole beaching operation is han-

dled by the pilot and one or two men on the beaching machinery so that use of men in the water is rendered unnecessary and heavy beaching gear fittings can be eliminated from flying boats.

Program of Army Air Forces for concentration on a few types of planes is stressed further by announcement of contract for the new secret fighter, which will be in the works at Fisher Body Cleveland Aircraft Division for some time.

Details of the plane, known as the P-75, are still restricted. It was powered with the new Allison liquid-cooled X engine and was the first to be completed, designed and built by an automotive manufacturer.

The discontinuance, forecast recently by the news, was interpreted in near quarters as being due to superior output and performance of models which have been produced by the old-line aircraft companies.

**Four Off Production Line.**—Pilot work began on the first contract in July 1943, and the first plane, designed by Dan Berlin, was assembled by hand and the first experimental model flown within about four months, according to company officials.

AAF plans to continue experimental development of the fighter and the Fisher plant will receive other high priority Army aircraft work.

**Shift to B-29 Assemblies.**—About 40 percent of the production workers at the Fisher plant were assigned to the P-75 project. Some of the workers thus released will be employed on B-29 Superfortress assemblies such as reinforced wings and tails, stabilizers, vertical and dorsal fins and wing tips.

The plant will reduce its work week from 54 to 48 hours and likewise stop during Thanksgiving, Christmas and New Year's Day. About 1,000 a month. The combination of new work, transfer to the B-29 and cessation of buying is expected to absorb nearly all workers released by cancellation of the P-75 contract.

and propeller production would be reduced in keeping with the curtailment of aircraft production in Canada, which covers all types from training planes to combat aircraft.

## Fisher Body's P-75 Contract Terminates

Starting of work on new secret fighter soon after news of increasing AAF concentration on few types of planes.

**BEECHCRAFTS SERVED 26 NATIONS BEFORE THE WAR**

**BEECHCRAFTS ARE DOING THEIR PART TODAY**

**AND WHEN PEACE COMES**

Beechcrafts will be ready. Ready to serve the nations of the postwar world with aircraft refined and proven by millions of miles of service and service. Ready with designs ideally suited for feeder airlines etc., for massive transport, for business and charter purposes, and for chartering, swift, safe personal transportation.

After the final V-Day, Beechcrafts will continue to do their part.

# Beech Aircraft

CORPORATION

**BEECHCRAFTS ARE DOING THEIR PART**

WICHITA, KANSAS, U.S.A.

## FINANCIAL

### Halting Tendencies Revealed In Airlines After Long Rise

Prices of air transport equities pushed upward to points where yields are extremely low, based more on potential earnings power than current operations.

Air transport share prices showing halting tendencies after one of the most remarkable upward moves in the market. Doubt has begun to appear among investors who sought peace stocks as a hedge against ephemeral war profits and post-war conversion dangers.

Airline equities, along with other peace-type securities, have been pushed to the point where yields are remarkably low. Most investors, of course, has always been of the relative lack of public interest in its stock.

**Low Dividend Yields**—Presently low yields prevail—originally from 1.87 percent for Delta to 2.4 percent for Pan American. Now any further price rises will shrink yields to absurdly low levels. The premium investors appear to be paying for peace shares above their wartime values may be construed to represent the market's belief that peace will more than compensate for the loss of war income. This reasoning may prove fallacious.

According to recognized group averages, air transport shares have advanced 223 percent from the 1942 low to the 1944 highs. The compares with a rise of only 21 percent for railroad shares during the same period. Obviously, investors have been willing to pay 122 percent more for one type of investment than for another simply in the hope of participating in the growth and speculative profits of the future.

**Firms Earning Ratio**—This capitalization of the future's income by the high airline price-earnings ratios shown in the table. For instance, Brewster's highest earnings are capitalized 23.3 times. Generally, sound, conservative appraisals of securities would expect earnings at about ten times. And considerable stability of operations would have to be present.

Thus airline shares have made a father of 100 as indicated by the accompanying chart. After gaining 14.7 percent since the first of the year, or 8.7 percent better than the general market, the air carrier group has begun to turn downward as a relative home. As a matter of related interest, the aircraft aver-

age while gaining but 11 percent since the outset of the year and about 3 percent better than the market as a whole, has shown strong upward tendencies of late (AVIATION NEWS—OCT. 9, 1944).

It is quite likely that investors who formerly looked at the market through a magnifying glass for ten years teleopes have found it more realistic to substitute a magnifying lens for the immediate years of peace.

**Expenses**—Large scale expansion is planned by all carriers. Placing of aircraft orders by the major lines is only one manifestation of the huge demands to be made for new capital necessary to finance the industry's expansion.

As new routes are opened and other facilities added, operating costs will tend to rise and reduce net revenues. The wartime boom in high loads in wartime to profitable equipment will no longer exist. However, the long range picture is to hold volume traffic on all route segments will be remained. Moreover, more intensive competitive conditions will prevail among the airlines themselves now that parallel lines run where none existed before. Further, the railroads may prove very formidable as a competitive factor and their resurgence can prove costly to the air carriers.

**Post-War Profit Margin**—Initially, the airlines may find they are in for costly operations once war restraints permit widespread expansion. It is likely, however, that after all this expansion is successfully launched, opportunities can prove very profitable. The fact remains, nevertheless, that during the first few peace years airline earnings may tend to chill much of the ardor that may exist on the part of investors for the distant outlook of the industry.

No special opportunity appears to be offered airline stocks as a peace group in the market place. During the July-November, 1943, reaction, airline shares fell along with the war babies. Similar downward action on the part of peace groups developed when the London market declined in September-November of 1943. In the current downward move of August-September of this year, the London and New York markets were less responsive of airline or other peace type securities. Clearly, their current valuation will be determined more directly on a basis of what the industry may be able to show in tangible earnings and results.

The fate of 100 is indicated by the accompanying chart. After gaining 14.7 percent since the first of the year, or 8.7 percent better than the general market, the air carrier group has begun to turn downward as a relative home. As a matter of related interest, the aircraft aver-

"HERE'S THE  
Hayfield  
WE STARTED WITH"



NOW LOOK AT US . . . WE'RE DOING

## BIG BUSINESS WITH A *Small Airport!*

"We didn't know a thing about running a profitable small airport, but Aeronca showed us! And then helped that we saw and I picked up on it. Buying head-quarters in the Midwest, getting them back, we're no more I sold the old grocery store and moved out here to help. But we never would have made the grade without Aeronca. They gave us the 'know how' from the man who has started so many successful airport operators on the road to big money in aviation with this plan."

Let Aeronca show you how to start now to build a profitable post-War aviation business! Get the facts about Aeronca's new airplane dealer program—the only complete profit-making program in the aviation field. Mail the coupon right now to Al Brewster, Aeronca Director of Sales . . . get the real "know how" from the man who has started so many successful airport operators on the road to big money in aviation with this plan.

HERE'S YOUR POST-WAR OPPORTUNITY! Send This Coupon NOW!

The Only Truly Aircraft Dealer in America  
AERONCA AIRCRAFT CORPORATION • MILWAUKEE, WIS.  
MAIL COUPON TODAY

Al Brewster, Director of Sales  
Aeronca Aircraft Corporation, Milwaukee, Wis.  
Send me your valuable illustrated booklet HOW TO MAKE  
SMALL AIRPORTS PAY WITH AERONCA! I enclose the  
sum of \$\_\_\_\_\_.  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
City and State \_\_\_\_\_  
Date \_\_\_\_\_



## TRANSPORT

### Return of Last 26 Planes Gives Lines More Seats Than Before Takeover

New allotment increases capacity to 6,105 passengers, compared with 6,145 before U. S. requisitioned craft, as result of return of larger DC-3 type aircraft in place of smaller Lockheed models.

The airlines came out of their half a dozen planes could provide full allocation of returned planes more service than if it operated under the 300 ceiling last week with more seating capacity than they had when the Army took over 166 of their aircraft in 1942. Industry estimates are that the 300, reached with the addition of 26 planes of the DC-3 type, will give the lines a capacity of 6,495 seats, compared with 6,145 before the takeover. This is accounted for in part by return of some Boeing 367 Stratoliners and also allocation of DC-6's to some of the lines that previously operated smaller Lockheed planes.

**Allotments.**—The new allocations are divided as follows: United Air Lines, Eastern Air Lines and TWA, five each; American Airlines, four; Pennsylvania-Central Airlines, three; Northwest Airlines, Delta Air Lines, Western Air Lines and Braniff Airways, one each.

Total equipment now operated or being prepared for operation by the airlines thus stands at 275 Douglas DC-3's, 16 Lockheed Lodestars, one Boeing Stratoliner, two Lockheed Electras, and two Douglas DC-7's. At the time of the takeover, the lines were operating 231 DC-3's, 13 DC-7's, 13 Lodestars, 14 Electras, and 25 Boeing 367-70 Stratoliners that had been in airline service already had gone to the military when the big May, 1942, takeover took place.

Despite the fact that a few more seats will be available under the 300 ceiling than there were when the lines were operating 324 planes, industry observers were quick to point out that equipment facility of operation is not overall large enough to accommodate the smaller lines. Seating capacity is not everything, although the war has brought fuller plane utilization. Obviously a line with its seating capacity divided among

ments that reconnection was slow, however, by pointing out that in many instances war priorities have caused difficulties in release of materials and time required to do the job. Much of the equipment originally in the planes has been lost, with the result that the airlines had to purchase new equipment.

**Allocations Expected to Continue.**—Generally it was felt, however, that as more transport planes become available, the reconnection will be made so that the ceiling will be lifted so further allocations may be made to the airlines. That the allocation system will continue during the period of short supply of equipment appeared a certainty.

Under the surplus disposal system, however, allocations now will be handled through the Defense War Property Administration and not through the Departmental working committee on which the Civil Aeronautics Board is represented with other agencies. The Board's intent is acting that all possible equipment be made available to the carriers therefore it is expected to continue as a prime factor in future allocations.

#### PCA Shuffles Operations

Pennsylvania-Central Airlines is reorganizing its operations department into four main divisions for flight operations, ground opera-

tions, personal and medical. Vice-President J. H. Campbell oversees overall operations. Captain J. A. Brooks superintends the flight division, R. W. Hartley ground operations, A. T. Barker the personnel division, and Dr L. G. Leider continues as chief of the medical division.

### Australia, N. Z. Ask Airline to America

Intensive opening of civilian air transport services, using military planes during wartime, is proposed.

Spurred by the northward movement of Air Transport Command operations in the Southwest Pacific, away from their areas Australia and New Zealand are recommending immediate establishment of a civil air transport service between Australia and North America.

The ATC flight to the south has fallen on the baton of the Pacific. Australian Air Minister A. Dickenson declared at Canberra that the proposed service would use railway transport aircraft during the war, and that gave the way for a commercial post-war operation between Australia and New Zealand, the United States and Canada.

**Link Britain and Commonwealth.**—The service would include an intra-British Commonwealth Air Service to provide transport between Great Britain and the Dominions. It is already discussed and to be further discussed at the British Commonwealth Air Conference Oct. 22 at Montreal.

At that conference Canada will suggest maximum protection of small countries and incentives for efficient operation of international air routes. Rewards for efficiency of operation under the Canadian revised plan, which likely will be submitted in November at the Washington international air conference also, are based on operating figures. Thus airlines showing the highest efficiency in payload as a percentage of capacity on international services would be allowed to increase such services if desired.

The Canadian delegation will include priorities of small nations in the sphere of international air routes and any international regulatory body that may be set up.

**Service to Be Doubled.**—Air Minister Dickenson revealed that Australia and New Zealand will re-establish as soon as possible full



WESTERN'S NEW OFFICES:

Western Air Lines' new offices, in San Francisco, feature the Indian motif. Specifically designed leather-trimmed counter desks are a feature. Wood carvings of Indian heads, Western-style, are on the walls, and chairs are upholstered in Indian designs.

### TWA Asks Local Service On Coast

TWA last week asked the Civil Aeronautics Board to amend its certificate for AM-23 to remove the restriction against serving San Francisco except on flights originating at or to or from Albuquerque, N. M.

The TWA application was filed after the Board had issued an economic regulation which will prohibit TWA layovers at Los Angeles of more than 65 minutes for flights serving San Francisco.

The restriction in TWA's certificate is designed to prevent the carrier from offering local service between Los Angeles and San Francisco. The application for the removal of that restriction, therefore, has the effect of asking authority to provide local service between those points.

### Fly Wounded Home

About 48 percent of all combat casualties returning from overseas are flown home by Air Transport Command's C-46's, at the rate of 4,000 a month. Maj. Gen. David N. W. Grant, AAP air surgeon, said in a Lessonsville speech









## Realistic Talk on Personal Flying

**N**o single article in a mass circulation magazine in recent years has aroused more favorable comment in private flying circles than the Saturday Evening Post's brutally realistic story Oct. 7 of a lightplane pilot's 2000-mile round trip, with a passenger, from New York to New Orleans.

The southbound flight alone required 5½ days. The winter had spent 30 hours and 56 minutes in the air at the end of his complete tour, and 39 hours and 50 more minutes had been invested in waiting for weather. Another 13 hours and 14 minutes went into travel between towns and their airports, with 17 hours and five minutes spent in necessary stops. An entire flying day was lost because airports are too distant.

Thousands of enthusiastic potential plane owners who do not have access to aviation periodicals will be disillusioned by the calm recital of expense, delays, red tape, discomfort and exasperation that is an old story to every private pilot who flies cross-country.

Such disillusionment is good. There should be more of it. Private flying still has no place for the effete pilot who is not ready to do his share of pioneering. There have been many futuristic commentaries on how private flying will overcome its obstacles. But few of these have put over dramatically and effectively to the public exactly why we need more airports, why they must be close-in, why we need thousands of road signs, sharper pilot training, simpler regulations, more economical and safer lightplanes, lower insurance,

maintenance, depreciation and service costs.

Few even of aviation's best friends have been willing to let the public in on the complications of becoming a pilot and plane owner. Those who were most interested went through the grim process by sheer determination. The others dropped out exasperated and disillusioned because they were never braced for their mission.

Desensitizing the truth will be a spur to insurance men, instructors, local and Federal government and Congressional leaders who must fight for airports. It will give a push to airport management and service people, and those who frame our regulations.

It should also be an incentive for the manufacturing industry. Weather is one of the most baffling problems of the future. The Saturday Evening Post writer contends that weather cannot be helped. Weather itself can't be. But some regulations for weather flying can be, and the Personnel Aircraft Council of the Chamber has already recommended that weather limits be lowered off-airways. This is a step. Lightplanes may never be able to plow blindly through sky sludge, but with the progress that has been made in this war on radar and navigation instruments, it is impossible to believe that industry will not develop some economical, light-weight aids which will further widen the private flyer's range.

Personal flying has enormous possibilities, many of them necessarily in the future. Plan talk about this year's realities is healthy. There should be more of it.

## The Role of Civil Air Patrol

**T**HE CIVIL AIR PATROL last week released an official memorandum signed by General Marshall which should put an end to rumors about the status and activities of CAP personnel. The patrol has been subjected to wide speculation both in aviation quarters and by the public.

Gen. Marshall emphasizes that as an official AAP auxiliary, CAP's purpose remains one of organizing public-spirited citizens of civil aviation into a volunteer, semi-military organization; to give them supplementary training in military and allied subjects, except for flight training, and to supervise the utilization of their skills and equipment in the war effort.

The Army's Chief of Staff emphasizes that CAP is flying now targets for the First and Fourth Air

Forces, is operating a national search system for missing aircraft, is recruiting air cadets and applicants for the Women's Army Corps and is directing preflight training of 18, 16, and 17 year old CAP cadets for possible future military service or in civil aviation. It is performing other emergency missions for Federal and state governments and industry. Although required to wear official uniforms while on duty, personnel are not paid for their services, except for some expense allowances, and are not deferred from service with the armed forces.

Those who know what CAP has done, and continue to do, can have few misgivings about CAP's present activities or little fear of its usurping any rights of civil aviation.

ROBERT H. WOOD



with this line of 25.5-volt d-c generators  
for aircraft

Fighters and bombers need lots of electrical power—but they watch their weight like a beautiful woman.

Yet the design of electrical apparatus for aircraft must consider more than just weight reduction—there are factors of vibration, cooling, and brush wear that must be met.

The five d-c generators shown at right represent the range of Westinghouse units that are meeting this exacting service. Their weight-output ratio is exceptionally favorable.

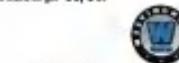
### FOR EXAMPLE:

TYPE	AMPERES	RPM	WEIGHT
S-1	150	2000-2500 rpm	22 lbs.
S-2	150	2000-2500 rpm	22 lbs.
S-3	150	2000-2500 rpm	24.5 lbs.
S-4	300	2000-2500 rpm	48.5 lbs.

Westinghouse started in the aviation field in 1917, building the first wind-driven, high-frequency alternators for World War I aircraft radios. These 27 years of experience in designing and manufacturing electrical equipment for aircraft constitute a sound basis for making Westinghouse your working partner in aviation progress. Westinghouse Electric & Manufacturing Company, Small Motor Division, P.O. Box 868, Pittsburgh 30, Pa.



14002

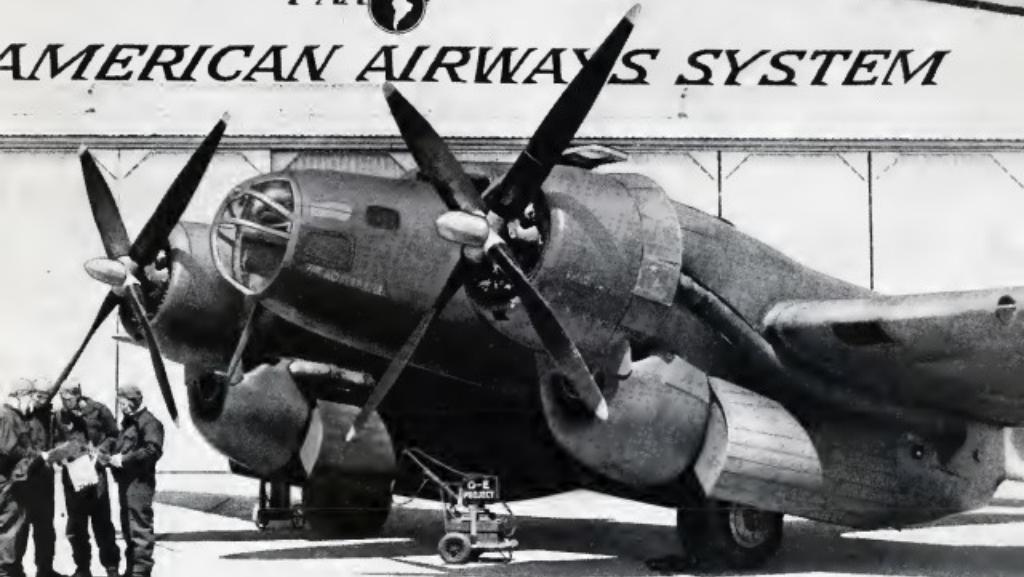


**Westinghouse**  
PLANTS IN 27 CITIES  
OFFICES EVERYWHERE

for 27 years the electrical partner of the aviation industry



# AMERICAN AIRWAYS SYSTEM



## Workshop on Wings

THESE G-E engineers work "upstairs"—sometimes as high up as the substratosphere. Their workshop is this unusual-looking airplane which is turbosupercharged and equipped with many new and special aircraft devices. Their job? They test, often at ultra-high altitudes and subzero temperatures, new aircraft products and systems born in the laboratories and engineering divisions of General Electric.

Exhaustive testing of new designs has long been a cardinal General Electric practice. Undoubtedly, this is one of the principal reasons why G-E aircraft products have established such splendid performance records on every fighting front. These products comprise the turbosupercharger, gas turbine for jet propulsion, motors, control, instruments; G-E systems—such as turret control, autopilot, power generation, and many others. They are proving in aerial warfare (as other G-E products have proved on America's production lines) that you can get the job done easier, faster, and with less wear and tear on manpower if you work with top-grade "tools"—the kind that General Electric has always built. *General Electric Company, Schenectady 5, N. Y.*



PRECISION PRODUCTS  
AND  
ENGINEERED SYSTEMS  
FOR  
AIRCRAFT

Buy all the BONDS you can—  
and keep all you buy

**GENERAL ELECTRIC**

624-588-9872